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10/591,125	03/08/2007	Eli Spinat	27647U	7338
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THE NATH LAW GROUP				
112 South West Street				
Alexandria, VA 22314				
EXAMINER				
IP, SIKYIN				
ART UNIT		PAPER NUMBER		
1735				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,125

**Applicant(s)**

SPINAT ET AL.

**Examiner**

Sikyin Ip

**Art Unit**

1735

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-18 and 25 is/are rejected.
- 7) ☐ Claim(s) 19-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 16 is objected to because of the following informalities:

16. (Currently Amended) [A] The process according to claim 16, wherein:  
[the] said magnesium alloy comprises 2.056% aluminum, 1.022% zinc, 0.329% manganese, 0.004% iron, 0.038% silicon, 0.001% copper, and 0.901% nickel.

The “,” should be read “.”.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 is vague and indefinite because the expression “may be” in line 3, which fails positively reciting the grain size.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13-18 are rejected under 35 U.S.C. § 103 as being unpatentable over GB1227255 (PTO-1449) in view of acknowledged prior art admission (APAA) and USP5087304 to Chang et al.

GB1227255 discloses the features including extruding magnesium base alloy (AZ31B) at 480°C with extruding speed less than 12 m./min (page 1, lines 11-23) except for the steps of manipulating an extrusion press, internal piercing mandrel, and reduction rate. However, APAA discloses a conventional direct extrusion process, which is substantially same as recited extruding steps with mandrel (instant specification, page 1, line 12 to page 2, line 4). Chang discloses conventional extrusion ratio ranges from 12 to 20 (col. 4, lines 18-20) in the same field of endeavor or the analogous metallurgical art. Chang discloses low ductility property can be obtained by

annealing (col. 9, lines 42-45). Example 6 has shown annealing temperature s ranging from 325 to 350 °C for 2 hours (col. 10, lines 45-53). It is known in the art of cited references that annealing at lower temperatures requires longer time. It is contemplated within ambit of ordinary skill artisan that higher reduction rate can be done at higher extruding temperature and slower extruding speed. Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to use conventional extrusion process and equipment and extrude at conventional speed and reduction rate because the set forth benefits and function (See GB1227255, page 1, lines 20-22). In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233. In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979); See In re May, 574 F.2d 1082, 1094, 197 USPQ 601, 611 (CCPA 1978) and In re Hoch, 57 CCPA 1292, 1296, 428 F.2d 1341, 1344, 166 USPQ 406, 409 (1970).

The annealing limitation in claim 17 without defining any condition reads on workpiece heat by residual heat after hot extrusion.

With respect of the apparatus "press having ram internal piercing mandrel" limitation in claim 1, It is well settled that method or process is an act or a series of acts and from the standpoint of patentability must distinguish over prior art in terms of steps. Ex parte Forsyth and Hancher, 151 USPQ 55, 55. Unless structure affects method steps. In re Leeson Corp., 185 USPQ 156.

Claims 18 and 25 are further rejected under 35 U.S.C. 103(a) as being

unpatentable over GB1227255 (PTO-1449) in view of acknowledged prior art admission (APAA) and USP5087304 to Chang et al as applied to claims above, and further in view of JP2057657.

GB1227255, acknowledged prior art admission (APAA), and Chang disclose the features substantially as claimed as set forth in the rejection above except for the specific annealing temperature and time and grain size. However, JP2057657 discloses thermo-mechanical processing steps for Mg based alloy in the same field of endeavor or the analogous metallurgical art. JP2057657 discloses annealing 250 to 500 °C for 4 hours to 1 min in order to control recrystallized grain size at least 10 µm (abstract). Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to anneal Mg based alloy at temperatures and time as taught by JP2057657 in order to improve strength, formability, dimensional accuracy, and surface properties (See JP2057657, abstract). In re LaVerne, et al., 108 USPQ 335 and In re Aller, et al., 105 USPQ 233.

#### ***Allowable Subject Matter***

Claims 19-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-18 and 25 have been considered but are moot in view of the new ground(s) of rejection.

## Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s) have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combinations of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been met by the rejections as set forth above.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121; 37 C.F.R. Part §41.37 (c)(1)(v); MPEP §714.02; and MPEP §2411.01(B).

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Thursday from 5:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica L. Ward, can be reached on (571)-272-1223.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sikyin Ip/  
Primary Examiner, Art Unit 1735  
March 8, 2011